

Role of the OSD Developmental T&E Office

T&E—"The Conscience of Acquisition"

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One of the reengineering goals of acquisition reform is to produce an efficient, effective Under Secretary of Defense (Acquisition and Technology) (USD[A&T]) staff organization—one that uses minimal time and human resources to accomplish the acquisition mission and one that complements the DoD leadership's vision. One means to assess the USD(A&T) staff's effectiveness is to gauge the "value added" by each of its staff elements, measuring that element's contribution to the overall mission goals. The "value added" by the Office of the Deputy Director, Test and Evaluation (ODDT&E) lies in the system assessments for the acquisition decision makers and its support to the acquisition system managers. "Value added" is often in the eyes of the beholder; thus, the purpose of this article is to demonstrate to you, the reader, that ODDT&E, in fact, adds value to the Defense acquisition process and complements the vision of the DoD leadership.

Background

In the recent past, Secretary of Defense Perry stated that Test and Evaluation (T&E) is the "conscience of acquisition." His guidance to the test and evaluation community is to:

- involve T&E in acquisition programs earlier;
- combine developmental and operational testing, when possible; and

- combine testing and training, where feasible.

The USD(A&T) has also given guidance that there should be continuous insight into programs rather than oversight, emphasizing prevention over cures, and focusing on program success rather than sub-optimization.

The "value added" to the acquisition process by the ODDT&E is defined by its mission and goals. As a member of the USD(A&T) staff, the DDT&E's principal *mission* is to provide acquisition decision makers with timely information, based on substantive analyses, regarding program technical risk and methods to mitigate risk where necessary.

The ODDT&E's *policy goal* is to accomplish the T&E mission in a manner that supports the system acquisition managers' efforts for a successful program, and to rapidly field systems that meet the warfighter's needs. Toward that end, ODDT&E strongly supports acquisition reform, and the T&E action officers are active participants in the Integrated Product Team (IPT) process. Participation in the IPT process, from program inception, provides the action officers the opportunity to be pro-active—committed to program success and acting as a positive influence on the program issues earlier in the acquisition cycle than previously possible.

The DDT&E office accomplishes its T&E mission and facilitates the program manager's (PM) success by helping the PM recognize the Test and Evaluation Master Plan (TEMP) and developmental test and evaluation (DT&E) as risk management tools. During the system development process, the value of DT&E to the PM is that T&E measures progress in risk mitigation. The TEMP is a tool to plan for this measurement. In executing the mission, the ODDT&E performs three major functions:

- **assesses test and evaluation planning** adequacy through review of the TEMP and related documents;
- **assesses program readiness to pass major milestones** from a technical maturity and risk viewpoint; and
- **provides PMs the tools** to facilitate accomplishment of their test and evaluation programs.

Assess Test And Evaluation Planning. Planning for test and evaluation is crucial to providing the data the PM needs for system performance *evaluation* and measurement of progress in *risk mitigation*. The ODDT&E gets involved early in the acquisition process as an IPT participant to assist in test planning. The DDT&E action officers, knowledgeable T&E professionals, assist the PM by contributing to test and evaluation planning; by advocating the coupling of DT&E to the PM's risk management plan; by assuring that the

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T&E plan adequately addresses user requirements; and by helping the program avoid problems and mistakes encountered in previous programs.

The coupling of DT&E to risk management is crucial to give PMs the information they need to assess program progress in risk mitigation. These T&E professionals also help the program to develop a T&E strategy that uses the Simulation, Test, and Evaluation Process (STEP); takes advantage of commercial-off-the-shelf and non-developmental items (COTS/NDI); combines developmental and operational testing, when feasible; and leverages other initiatives that will save time and resources.

Additionally, ODDT&E developed the Automated Test Planning System (ATPS), an expert-based system (discussed in a succeeding paragraph, "Provide PMs the Proper Tools"), which assists the PM in ensuring that the TEMP is developed to address technical risk. Linkage between the TEMP and the Risk Management Plan yields a DT&E program that provides insight into risk mitigation and, with the proper use of modeling and simulation, provides information as to the expected system operational capability (i.e., Early Operational Assessments). Already, ATPS is proving to be an essential program management planning tool and may currently be accessed from the Acquisition Deskbook.

Assess Program Readiness to Proceed Through Milestones. The ODDT&E provides the senior acquisition decision makers with an assessment of program technical performance and risk. This assessment provides the decision makers T&E information, through the Overarching Integrated Product Team, upon which to base their milestone decisions. Moreover, ODDT&E provides an OSD perspective on each program and its risk. The assessment and perspective are independent of the program advocates. However, they are not a surprise to the PM and Program Executive Officer; rather, *in the spirit of acquisition*

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reform, they are assessments made by T&E professionals that have been thoroughly discussed with the program management and other acquisition professionals in previous IPT meetings.

The ODDT&E works with the program office, in conjunction with the Office of the Director, Operational Test and Evaluation, both directly and through the IPT process, to understand the seriousness of any faults or risks and to ensure the system is indeed ready to enter the next acquisition phase, or to exit DT&E and begin Initial Operational Test and Evaluation.

Provide PMs the Proper Tools. The ODDT&E provides PMs with tools to enhance test and evaluation planning and program technical risk assessment. The intent is to provide the PMs with the means to get the job done right the first time. The Automated Test Planning System (ATPS) is one such tool. A set of expert system-based software

tools, ATPS is composed of three modules: TEMP Build Module, TEMP Review Module, and T&E Program Risk Assessment Module. These modules take the user through defined steps, coupled with expert advice, to perform the module functions. They provide aids for writing the TEMP; for the PM, Service staffs, and OSD to review the TEMP; and for all to assess program technical risk.

Included in the ATPS is the DoD 5000 series with hypertext links from the TEMP requirements to the proper 5000 series reference. By making the DoD references immediately available, the system saves the program office time. It serves to aid the test and evaluation planning process by assisting to build the linkage between the test program and the PM's risk management plan. It also serves as an aid to the PM in evaluating program risk.

ODDT&E Brings Value to the Acquisition Process

The ODDT&E brings value to the acquisition process through its T&E planning activities and efforts to quantify risk mitigation, its IPT participation, and its T&E tools.

Risk management through the DT&E program enhances program success. Proper **T&E planning** includes linkage from requirements to measures of performance, ensuring that the program will meet warfighter needs.

Through the **program assessments and IPT process**—participation, communications, and information sharing—this office assists the PM to identify areas of risk early in the development sequence, permitting the PM to take timely and cost-effective actions, thus managing risk while reducing the cost and time to develop the system.

The **T&E enhancement tools** now furnished PMs by ODDT&E provide them with information on test planning and risk assessment that they previously did not have readily at their disposal.